

Accreditation Certificate

Metrology Systems & Services Ltd.

Coolagown, Fermoy, Co Cork

Calibration Laboratory

Registration number: 161C

is accredited by the Irish National Accreditation Board (INAB) to undertake calibration as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard **ISO/IEC 17025:2005 2nd Edition**

“General Requirements for the Competence of Testing and Calibration Laboratories”

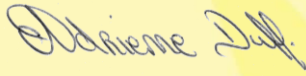
(This Certificate must be read in conjunction with the annexed Schedule of Accreditation)

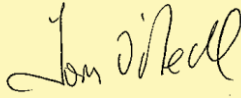
Date of award of accreditation: **14:02:2005**

Date of last renewal of accreditation: **03:09:2015**

Expiry date of this certificate of accreditation: **03:09:2020**

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: 
Dr Adrienne Duff

Chairperson: 
Mr Tom O'Neill

Issued on **03 September 2015**

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:

Category A + B

METROLOGY SYSTEMS & SERVICES LTD

Permanent Laboratory:

Coolagown, Fermoy, Co Cork

Castlelyons, Co Cork. (Awarded 19th Dec 2013)

Mass and Balance Calibration Laboratory

Initial Accreditation Date : 14-February-2005
Postal Address: Coolagown, Fermoy, Co Cork
Telephone: +353 (25) 36640
Website: www.mssireland.com
E-mail: metrology1@eircom.net
Contact Name: Mr Donal O' Leary
Facilities: Public calibration service

Schedule of Accreditation



Permanent Laboratory:
Category A + B

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

Calibration Categories:

- Category A:** Permanent calibration laboratory where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration that is performed on site by individuals and organisations that do not have a permanent calibration laboratory. Calibration may be performed using
- (a) portable test equipment
 - (b) a site laboratory
 - (c) a mobile laboratory or
 - (d) equipment from a mobile or site laboratory

Standard Specification or Calibration Procedure Used:

The standard specification or calibration procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

Glossary of Terms

Facilities:

- Public calibration service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration:** Unavailable for public calibration more often than not.

Laboratory users wishing to obtain assurance that calibration results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate. Users should contact the laboratory directly to ensure that this schedule of accreditation is current. INAB will on request verify the status and scope.

Scope of Accreditation



Metrology Systems & Services Ltd

Permanent Laboratory:
Category A

Mass Calibration Laboratory: Coolagown, Fermoy, Co Cork.
(Nominal temperature for calibration work: $20 \pm 1.0^\circ\text{C}$ (F2)
 $20 \pm 2.0^\circ\text{C}$ (M1-M3))

INAB Classification number (P9) Measured quantity	Range of measurement	Calibration & measurement capability expressed as an uncertainty *	Method and remarks
120 Mass	Range-Nominal value in Grams	Based on documented in-house methods 4.6 and 4.20 in compliance with O.I.M.L. Class F2, M1 to M3 Standards from 5kg to 25kg inclusive measurement Capability Expressed as an Uncertainty (\pm mg) (See Note 1 and 2)	
.02 Industrial Mass Standards	(g)	(mg)	
M1	25,000	250	
F2	20,000	60	

*** Notes:**

- Intermediate values can be calibrated with an uncertainty interpolated from the next higher and lower values in the table above.
- Calibration can be given in other units as required.
- Calibration and measurement capability expressed as an uncertainty (\pm) to be reported in compliance with EA-4/02, "Evaluation of the Uncertainty of Measurement in Calibration".

Scope of Accreditation



Metrology Systems & Services Ltd: Coolagown, Fermoy, Co Cork.

Permanent Laboratory:
Category A

Mass Calibration Laboratory - (F1/E2)

(Nominal temperature for calibration work: 20 ± 1 °C)

(Nominal Humidity for calibration work: 35% to 70 % RH)

(Nominal Atmospheric pressure for calibration work: 980 hPa to 1030 hPa)

INAB Classification number (P9) Measured quantity	Range of measurement	Calibration & measurement capability expressed as an uncertainty *	Method and remarks
120 Mass	Range-Nominal value in Grams	Based on documented in-house methods 4.26, 4.25, 4.24, 4.23, 4.22 and 4.21 in compliance with O.I.M.L. Class F1, Standards from 500g to 10000g: Class E2, Standards from 1g to 2000g inclusive CMC Expressed as an Uncertainty (\pm mg) (See Note 1 and 2)	
.02 Industrial Mass Standards	(g)		
F1	10,000	10	
F1	5,000	5	
E2	2,000	1	
E2	1,000	0.54	
E2	500	0.27	
E2	200	0.1	
E2	100	0.05	
E2	50	0.030	
E2	20	0.025	
E2	10	0.020	
E2	5	0.016	
E2	2	0.012	
E2	1	0.010	

*** Notes:**

- Intermediate values can be calibrated with an uncertainty interpolated from the next higher and lower values in the table above.
- Calibration can be given in other units as required.
- Calibration and measurement capability expressed as an uncertainty (\pm) to be reported in compliance with EA-4/02, "Evaluation of the Uncertainty of Measurement in Calibration".

Scope of Accreditation



Metrology Systems & Services Ltd Coolagowan, Fermoy, Co Cork.

Permanent Laboratory:
Category A

Mass Calibration Laboratory - (F1/E2)

(Nominal temperature for calibration work: 20 ± 1 °C)

(Nominal Humidity for calibration work: 35% to 70 % RH)

(Nominal Atmospheric pressure for calibration work: 980 hPa to 1030 hPa)

INAB Classification number (P9) Measured quantity	Range of measurement	Calibration & measurement capability expressed as an uncertainty *	Method and remarks
120 Mass	Range-Nominal value in mg	Based on documented in-house methods 4.25, 4.24, 4.23, 4.22 and 4.21 in compliance with O.I.M.L. Class F1, E2 Standards from 500mg to 1mg inclusive measurement Capability Expressed as an Uncertainty (\pm mg) (See Note 1 and 2)	
.02 Industrial Mass Standards	(mg)	(mg)	
E2	500	0.008	
E2	200	0.006	
E2	100	0.005	
E2	50	0.004	
E2	20	0.0033	
E2	10	0.003	
E2	5	0.002	
E2	2	0.002	
E2	1	0.002	

*** Notes:**

1. Intermediate values can be calibrated with an uncertainty interpolated from the next higher and lower values in the table above.
2. Calibration can be given in other units as required.
3. Calibration and measurement capability expressed as an uncertainty (\pm) to be reported in compliance with EA-4/02, "Evaluation of the Uncertainty of Measurement in Calibration".

Scope of Accreditation



Metrology Systems & Services Ltd :-Castlelyons, Co Cork.

Permanent Laboratory:
Category A

Mass Calibration Laboratory

(Nominal temperature for calibration work: 20±5 °C)

INAB Classification number (P9) Measured quantity	Range of measurement	Calibration & measurement capability expressed as an uncertainty *	Method and remarks
120 Mass	Range-Nominal value in kg	Based on documented in-house method 4.18 in compliance with O.I.M.L. Class M1, M1-2 Standards Measurement Capability Expressed as an Uncertainty (± g) (See Note 1 and 2)	Method 4.18
.02 Industrial Mass Standards	(kg)	(g)	
M1	50	0.5	
	100	1.0	
	200	2.0	
	500	5.0	
M 1-2	1,000	20	

*** Notes:**

1. Intermediate values can be calibrated with an uncertainty interpolated from the next higher and lower values in the table above.
2. Calibration can be given in other units as required.
3. Calibration and measurement capability expressed as an uncertainty (±) to be reported in compliance with EA-4/02, "Evaluation of the Uncertainty of Measurement in Calibration".

Scope of Accreditation



Metrology Systems & Services Ltd :-Coolagown, Co Cork.

Permanent Laboratory:
Category B

Balance Calibration Laboratory

(Environmental conditions: Relative Humidity 35 to 70%,
Temperature $20 \pm 10^\circ\text{C}$, Pressure 970 to 1030 hPa)

INAB Classification number (P9) Measured quantity	Range of measurement	Calibration & measurement capability expressed as an uncertainty *	Method and remarks
121 Weighing Devices			
.01 Precision laboratory balances	1 mg to 2,000 g	± 4.0 mg	Based on documented in-house method 4.17 using O.I.M.L. Class F ₁ , reference standards 1 mg to 2000 g

*** Notes:**

1. Intermediate values can be calibrated with an uncertainty interpolated from the next higher and lower values in the table above.
2. Calibration can be given in other units as required.
3. Calibration and measurement capability expressed as an uncertainty (\pm) to be reported in compliance with EA-4/02, "Evaluation of the Uncertainty of Measurement in Calibration".